Remarks

This amendment is submitted in response to the Office Action mailed November 28, 2005. Claims 1-18 are pending in the application. New claims 22-31 are added to provide claim coverage commensurate with the scope of the invention.

The Office Action rejected claims 1-18 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. In order to advance prosecution, independent claims 1, 7, and 13 are amended in this paper. The rejection under § 112 is now moot as the claim limitations cited in the Office Action as grounds for rejection are cancelled.

Independent claim 1 has been amended to include the limitation of "creating a first candidate string by concatenating candidate characters with a most favorable corresponding confidence indication from each result set, the first candidate string including candidate characters from both the first and second selected character types." Support for this limitation is shown in Figure 3 and the accompanying text. Specifically, candidate string 306 is created from top characters from each results set to form "B01LER." The top characters from the result sets are the most favored in each respective result set 304a-f. The candidate string 306 includes candidate characters from two different character types, namely upper case and number.

Independent claim 1 further requires "for the first and second candidate strings, combining the associated confidence indication for each concatenated candidate character to form a corresponding combined confidence indication." The corresponding combined confidence indications 308 and 312 are noted in Figure 3 and the text.

Independent claim 1 requires "selecting as the result string the second candidate string rather than the first candidate string." By assuming that all characters in the initial input string 300 were of the same type, a more accurate result string can be obtained. Page 7,

13   Application No.: 09/919,769

paragraph [0021] Accordingly, the second candidate string 310 is selected as the result string rather than the candidate string 306.

United States Patent No. 3,988,715 to Mullan et al. ("Mullan"), cited in previous actions, teaches the sequential storing of characters for specific genres in address registers. (column 3, line 65 to column 4, line 5, and column 10, lines 38-56) As disclosed, alphabetic characters are stored in an alphabetic register, Cyrillic characters are stored in a Cyrillic register, and numeric characters are stored in a numeric register. Mullan does not teach or suggest that characters of different types are stored in a register. The joint conditional probabilities of each register are then compared to determine which character type is introduced into an output stream. Column 12, lines 18-41. Thus, Mullan teaches that only characters of the same type are entered into the register. There is no candidate string with candidate characters from both first and second selected character types. Mullan further has no teaching or suggestion of selecting the second candidate string over the first candidate string that explicitly does not conform to a single character type.

Japanese Patent Publication 2-58187 to Yamaguchi ("Yamaguchi") has been cited in previous actions for its teaching of character candidate resemblance. However, Yamaguchi does not teach or suggest the preferential selection of a second candidate string with characters conforming to a second character type over a first candidate string with the most favorable characters from each result set.

Independent claims 7 and 13 include similar limitations and likewise represent patentable subject matter.

Depending claims 4, 10, and 16 include the limitation that if there is no candidate character in a result set for the second character type a substitute candidate character of the first character type is extracted. In previous actions, Mullan was cited for its teaching of

14   Application No.: 09/919,769

substituting a "*" for an absence of character recognition. Column 5, lines 5-17. In Mullan the "*" is arbitrarily chosen as it is not included in the English alphabet, Russian alphabet, and is not a number. This is further evidenced as the "*" is used universally with the English, Russian, and number channels to indicate non-recognition. Thus, Mullan does not teach selecting a substitute character from another character type.

Depending claims 5, 11, and 17 include the limitation of a character type including a plurality of subset character types and the second candidate string includes candidate characters from different subset character types. In previous actions, Mullan was cited for teaching "a nonformatted Japanese OCR which reads the Katakana as well as the Romnji alphabets." Column 7, lines 12-13. However, Mullan recites, in detail, that this requires three independent recognition channels, one for Katakana and two for the Romnji. Column 7, line 13 to column 8, line 43. Each channel corresponds to only one character type. There is no teaching of a channel with multiple character types and there is no teaching of a channel with multiple subset character types. Accordingly, there is no teaching of a candidate string with characters from different subset character types.

Depending claims 2, 3, 6, 8, 9, 12, 14, 15, and 18 depend from claims 1, 7, and 13 respectively and represent patentable subject matter for the reasons discussed above.

New claims 19, 20, and 21 recite that the combined confidence indications of the first and second candidate strings are equal. This is supported in Figure 3 wherein the combined confidence indications 308 and 312 are shown to have the same value. With equal combined confidence indications, claims 19, 20, and 21 recite that the second candidate string is selected rather than the first candidate string.

Independent claims 22 and 27 recite the creation of first and second candidate strings from first and second candidate strings respectively. Claims 22 and 27 further require that "if

15   Application No.: 09/919,769

there is no candidate character for the first candidate string in a result set for the first selected character type, extracting a substitute candidate character of the second selected character type." Support is found for this limitation on page 8, paragraph [0024] and Figure 3. Figure 3 illustrates that for the candidate string "301LER" 314, the characters "LER" are substitutes taken from another character type. The substitute candidate character is then concatenated with candidate characters with a most favorable corresponding confidence indication of the first selected character type from each result set to form a first candidate string.

As discussed above in reference to claims 4, 10, and 16, Mullan does not teach the substitution of characters from another selected character type. Mullan discloses only the use of a symbol "*" to be applied universally to all character types to indicate non-recognition. Claims 22 and 27 require that the substitute character correspond to the character type of the other candidate string. This is not taught or fairly suggested in Mullan.
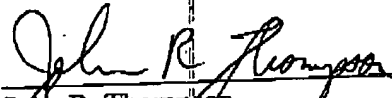
Depending claims 23 and 28 further require that the substitute candidate character corresponds to a most favorable corresponding confidence indication of the second selected character type. There is no teaching or suggestion in Mullan of the non-recognition symbol having a most favorable corresponding confidence indication. Mullan does not teach inserting substitute characters from other character types to thereby complete a candidate string.

The remaining depending claims 24-26 and 29-31 depend from claims 22 and 27 respectively and represent patentable subject matter for at least the reasons discussed above.

Applicant believes the application is now in condition for allowance and respectfully requests the same. The Examiner is encouraged to telephone the undersigned if any issues remain.

16   Application No.: 09/919,769

Respectfully submitted,

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17   Application No.: 09/919,769